Amendments to the Specification

1.   Please replace the paragraph beginning at page 1, line 6, which starts with "In order the achieve ...", with the following amended paragraph:

In order ~~the~~ <u>to</u> achieve high performance execution of difficult and complex programs, for many years, scientists, engineers, and independent software vendors have turned to parallel processing computers and applications. Parallel processing computers typically use multiple processors to executed programs in parallel fashion which typically produces results faster than if the programs were executed on a single processor.

2.   Please replace the paragraph beginning at page 5, line 16, which starts with "Referring now to Figure 1...", with the following amended paragraph:

Referring now to Figure 1, an input to the computer system 610 is the source code 101 which may be a parallel computer program written in a programming language such as, by way of example only, Fortran 90. However, the source code 101 may be written in other programming languages such ~~a~~ <u>as</u> C or C++ as two examples. This program 101 may have been parallelized by annotating a corresponding sequential computer program with appropriate parallelizing directives. Alternatively, in some embodiments, source code 101 may be written in parallel format in the first instance.

3.   Please replace the paragraph beginning at page 7, line 27, which starts with "In some embodiments, a taskq task ...", with the following amended paragraph:

In some embodiments, a taskq task has a task queue associated with it. For example, taskq 301 may have associated with it task queue 303 and taskq 307 may have associated with it task queue 309. Tasks that are generated by the execution of the taskq task ~~310~~ 301 structure may be placed in ~~taskq~~ task queue 303. In like manner, tasks generated by the execution of taskq structure 307 may be placed in ~~taskq~~ task queue 309.

4.   Please replace the paragraph beginning at page 11, line 9, which starts with "In some embodiments, if at block 419, ...", with the following amended paragraph:

In some embodiments, if at block 419, the thread determined that a task is available, then the thread releases the lock on the other thread's activation list and executes the task, block ~~415~~ 425. If the task executed at block 425 was a taskq task which generates a new taskq task, then the new taskq is assigned to the executing thread and the thread may lock the bit mask, block 429, and may set the bit associated with the activation list from which the new taskq task was assigned if the bit was not already set.